

ABSTRACT OF THE DISCLOSURE

In a plasma processing method which comprises supplying a processing gas to a vacuum vessel 2 forming a plasma production part, producing a plasma 6 using an antenna 1 and a Faraday shield 8 which are provided at outer periphery of the vacuum vessel and to which a high-frequency electric power can be applied, and carrying out the processing, a voltage of at least 500 V is applied to the Faraday shield 8 and a sample 12 which is disposed in the vacuum vessel 2 and which is a nonvolatile material as a material to be etched is etched.